

CLAIMS

1 . A runway intended to be traveled by vehicles mainly driven by gravity, comprising a supporting structure and a track line structure, said track line structure being sustained by said supporting structure and comprising a number of track sections, said track line structure having a upper start region and a lower arrival region, said start and arrival regions being determined by track sections directly connected to said supporting structure, wherein said supporting structure has a limited extension defining a central region of the runway, and the track line structure includes some track sections directly connected to the supporting structure and some overhanging track sections of large extent projecting out of said central region defined by the supporting structure, the runway comprising cables forming rigging systems connecting said overhanging track sections of the track line structure to the supporting structure, said rigging systems supporting said overhanging track line sections and establishing their geometrical locations.

2 . A runway as set forth in Claim 1, wherein said cables forming said rigging systems which support said overhanging sections of the track line structure have an extension which can be regulated.

20 3 . A runway as set forth in Claim 1, wherein said central supporting structure substantially forms a pillar.

25 4 . A runway as set forth in Claim 1, wherein said central supporting structure comprises a substantially vertical mast, substantially horizontal extensions projecting from said mast and uprights extending from said extensions, said extensions and uprights supporting said track sections by means of said rigging systems.

5 . A runway as set forth in Claim 1, wherein said track line structure defines a substantially helicoidal path with oval plane.

30 6 . A runway as set forth in Claim 1, intended to be used as a game, wherein both said supporting structure and said track line structure comprise modular elements forming a system of composable modular elements.

7 . A runway as set forth in Claim 1, intended to be used as a game, wherein both said supporting structure and said track line structure comprise modular elements forming a system of composable modular elements also suitable for composing simple runway structures, wherein all said track line
5 sections are directly supported by said supporting structure and are not suspended by means of rigging systems.

8 . A runway as set forth in Claim 1, intended to be used as a game, wherein both said supporting structure and said track line structure comprise modular elements forming a system of composable modular elements which is
10 compatible and integrated with a general system of composable elements for the composition of static and dynamic structures.

9 . A runway as set forth in Claim 1, intended to be used as a game, wherein both said supporting structure and said track line structure comprise modular elements forming a system of composable modular elements which is
15 compatible and integrated with the general system of composable elements for the composition of static and dynamic structures described in the U.S. Patent No. 6,315,628.

Diagram 10
10 . A system of composable modular elements for the composition of a track line structure of a runway intended to be used as a game, comprising a
20 number of track sections, each track section including a pair of bars, curved ties connecting at intervals said bars, the concavity of said ties facing the upper side of said track section, said pair of bars having at each end a coupling tie, each coupling tie having at bottom two connecting teeth.

11 . An elements system as set forth in Claim 10, wherein each said
25 track section has at bottom some projections intended to stabilize its longitudinal position.

12 . An elements system as set forth in Claim 10, wherein each said track section is formed of a semi-rigid plastic material capable of allowing a limited curvature of the track section around a transverse axis parallel to the
30 plane of said track section and a limited torsion of said track section, but no substantial deformation thereof in the transverse direction.

100-5112-022020

13 . An elements system as set forth in Claim 10; comprising a number of coupling elements intended for mutually connecting said track sections, each said coupling element having a wide-H cross section wherein can accommodate one of said coupling ties, and having two pairs of transverse slots 5 suitable for engaging with said connecting teeth of the coupling ties.

14 . An elements system as set forth in Claim 10, comprising a number of coupling elements intended for mutually connecting and for supporting said track sections, each said coupling element having a wide-H cross section wherein can accommodate one of said coupling ties, having two pairs of transverse slots suitable for engaging with said connecting teeth of the coupling ties, and having two uprights extending from opposite sides of the element, a pivot connected to said uprights and a movable member mounted on said pivot and having a hook suitable for receiving the connection of a cable.

15. A system of composable modular elements for the composition of a supporting structure of a runway intended to be used as a game, including a number of female coupling members, each female coupling member having a cross section comprising a center, eight circle arcs symmetrically subsequent with respect to said center, and a cavity delimited by said circle arcs.

16 . An elements system as set forth in Claim 15, further including a
20 track section comprising a pair of bars, said bars being so arranged that the track section can be fixed by elastic snap into said cavity of the female coupling member by engaging both track bars into two not directly subsequent arcs of the cross section of said coupling member.

17. An elements system as set forth in Claim 15, further including a
25 number of base elements, each base element comprising a rest portion and a
central sleeve having a cross section corresponding to that of said female tu-
bular coupling member.

18 . An elements system as set forth in Claim 15, further including a number of male coupling elements intended to allow mutual coupling between two said female coupling members, each male coupling element comprising a thin plate having an outline like that of said female coupling member and,

projecting from both sides of said plate, plane surfaces having six edges suitable for being frictionally inserted, according to two orthogonal directions, into six of the eight arcs of said female coupling member.

19 . An elements system as set forth in Claim 15, further including a 5 number of elements having a multiple modular length for forming columns or cross-bars, each multiple length element comprising a trunk and, at both ends of said trunk, female coupling members.

20 . An elements system as set forth in Claim 15, further including a 10 number of multiple connection elements, so-called knots, each knot comprising a tubular portion having an outline like that of said female coupling member and plane male coupling surfaces projecting from opposite sides of said tubular portion, said coupling surfaces having six edges suitable for being frictionally inserted, according to two orthogonal directions, into six of the eight arcs of one of said female coupling members.

15 21 . An elements system as set forth in Claim 15, further including a number of multiple connection elements, so-called knots, each knot comprising engaging means for additional elements, and including additional elements, each additional element comprising a plate suitable for connection to said engaging means of a knot and, projecting from said plate, plane male 20 coupling surfaces having six edges suitable for being frictionally inserted, according to two orthogonal directions, into six of the eight arcs of one of said female coupling members.

22 . An elements system as set forth in Claim 15, further including a 25 number of multiple connection elements, so-called knots, each knot comprising a through cavity.

23 . An elements system as set forth in Claim 15, further including a 30 number of connection elements, each connection element comprising a thin plate having an outline like that of said female coupling member, four cylindrical sleeves projecting from both sides of said plate, suitable for being frictionally inserted into four of the eight arcs of one of said female coupling members, and hooks projecting from peripheral edges of said plate, suitable for receiving a noose of a cable.

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24 . An elements system as set forth in Claim 15, further including suspension cables and regulation elements for regulating the extension of said cables, each said regulation element comprising a pair of clamps mutually connected in steps and suitable for being snap closed for imposing to a said

5 cable a self-locking configuration though allowing a willful gliding movement of the regulation element along said cable, each said regulation element further comprising a hook also serving as a control handle, and guide surfaces for facilitating a correct engagement of a cable into said clamps.

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